# POTOMAC VALLEY RADIO CLUB - NEWSLETTER - JANUARY 1999

PLEASE SUPORT OUR SPONSOR HRO

PVRC CALENDAR	
Weekly Wed	BWI Regional weekly breakfast. Wednesdays 7:30 am,
	Basil's Deli, Elkridge Landing Rd near BWI.
Jan 4 Mon	South MD at Wayne Rogers, N1WR, Lusby, MD, 7:30 pm
Jan 7 Thu	PVRC/NC, Ryan's Family Steakhouse at Crossroads,
	Cary at 6 pm (Date change)
Jan 11 Mon	Central meeting
Jan 19 Tue	Northwest meeting, Tully's Grill,
	1080 W. Patrick St, Frederick, MD at 7:30 pm
Jan 19 Tue	Tidewater Colony meeting with VA-DXCC.
Jan 22 Fri	Normal SW VA Chapter meeting night. See reference page.
Jan 23/24	ARRL VHF Sweepstakes. 5 Mil award contest. See below.
Jan 30/31	CQWW 160m CW contest. 5 Mil award contest.
	Rules on page 4.
Feb 4 Thu	PVRC/NC, Ryan's Family Steakhouse at Crossroads,
	Cary at 6pm
Feb 20/21	ARRL CW DX Contest. 5 Mil contest. NP2S is a PVRC
	DXpedition.
Feb 27/28	CQWW 160m SSB Contest. 5 Mil award contest.

VHF SOFTWARE AND VHF SWEEPS by Ed Steeble, K3IXD

This article was written by Ed for our January Autocall column and included here as a reminder to all PVRC'ers. -editor.

An aid to contest enjoyment is good software that is reliable and correctly scores the contest. Allen, WG3E, has written and made available as shareware, via the internet, a VHF contest logging program that will run on any PC from a 8086 up to the most current Pentium. You can down load the program from his web page: http://www.op.net/~ahuber/vhf/ and look for and download 0698.EXE file.

From January 23, 2PM until January 24, 11PM, 1999, the VHF bands will be active due to ARRL's VHF sweepstakes contest. This contest features many stations operating from home due to the colder weather; however some portable stations, mountain topping teams, and rovers (mobile stations) venture out.

In the VHF contest repeaters cannot be used. Also 146.52 and the adjacent guard channels cannot be used for contest QSOs. Most of the 2m FM contest activity is on 146.55 and 146.58 MHz. Other FM simplex frequencies used are 52.525, 223.50, and 446.00 MHz.

This is a club competition contest. The complete contest rules are on ARRL's web page and a summary are in QST. PVRC welcome a QSO from you, either on CW, SSB, or FM on any of the VHF bands. And work the other clubs too.

CQ WORLD-WIDE 160 METER DX CONTEST

CW: 2200Z Jan 29 to 1600Z Jan 31, 1999

The official rules for 'phone and CW are on page 4 of this issue.

DONATIONS REPORT by Dave Baugher, WR3L, Treas.

The club would like to thank WG3U, AA3KD, W8ZA, W3AZ, N4RZ, and NR4L for their donations during December.

PVRC/NC CHAPTER MEETING, 10 December 1998 by Jim Price, N3QYE for KS4XG/Limey Mobile

The meeting was at 6:00 pm at Ryan's Steak House, Cary, NC. Members Present were George WX4DX, Brian K3KO, Bert N4CW, Bob K4HA, Jeff N3NPQ, Jim N3QYE, Jim K4MA, Jim K4QPL, David KF4MOK, Tom N4TL, Steve WB8III, and Jay NT4D.

- 1. Reminder: N1KC is taking orders for PVRC stuff and the deadline is just around the corner. (deadline passed. -editor)
- 2. Don't forget deadlines for submitting logs for recent contests.
- 3. Those present agreed it would be nice to have a special meeting next month to recognize our achievements in 1998. Jim K4MA will look into reserving someplace special like the Fox and Hound.
- 4. Don't forget the 10m contest this weekend and NAQP in January, plus the Stu Perry 160m contest on 12/26.
- 5. The RTTY Roundup is also coming up. K4MA invited anyone who is interested in RTTY to observe him, Will AA4NC and John W4CC operating at John's QTH in Charlotte.

K4QPL enjoyed working CW Sweeps from KS4XG's QTH. He has arranged to purchase a TH7 with 70 feet of Rohn 25G and a Ham III or IV rotor. Anyone who would like to share the ride to Columbia SC on 12/28 to pick it up is welcome to join him.

NT4D is really enjoying his new antenna farm. He has yet to jump into a 40m pileup and not crack it on the first try. He's planning on operating the 10m contest and the RTTY roundup. We discussed a little bit about differing strategies, i.e. whether to go for max points or entering less-competitive categories to get a better finish. Jay is interested in seeing new ways to recognize club member achievements other than the 5M award.

N4CW is now digging at his 4th and final hole for his new tower, and he has 60 feet of Rohn 45 now on site at his Maine QTH. He operated Sweeps from home and CQWW from AA4NC's station, and he'll be operating in the  $160\,\mathrm{m}$  Stu Perry contest.

K4HA got on for Sweeps and last weekend's 160m contest. He also operated a little bit for CQWW under his own call and the Cary club's new call N4NC. He has plans to put up a 600-foot beverage pointing west along a neighboring farm's fence.

N3QYE operated with KF4ARS for SS Phone from W4ATC (NCSU club station). KF4ARS also operated with KO4PY from W4ATC for SS CW. N3QYE is looking forward to the 10m contest this weekend and the VHF contest in January.

N3NPQ announced he met some local Aussies with 3-land calls who are very interested in VHF contesting, and he may drag them to a PVRC meeting soon.

WB8III helped NT4D during SS Phone, and has plans to be more active during the coming year.

K4MA put in a serious effort for both portions of SS but just played around for CQWW and last weekend's 160m contest. He thought the 160m DX wasn't as good as last year. He plans on operating mixed mode in the 10m contest this weekend and also getting on the air for the Stu Perry challenge.

FYI N4CW announced great success in locating noisy phone poles by going mobile and sniffing on 2m AM with a small yagi. He'd be happy to assist anyone with similar noise problems.

MINUTES OF CENTRAL CHRISTMAS DINNER MEETING, DECEMBER 15, 1998 by Rich Boyd, KE3Q, Sec

Our annual Christmas dinner was held (or eaten) at 6PM, 12/14/98, at the Olive Garden Restaurant, Route 7, Tyson's Corner, Virginia. In attendance, in order of sign-in, were: KE3Q, W3AMY, K3MM and Laurie, K1RZ, ND3F, W3LPL, R3/K3NA, N3OC, W36D, N3RR, W3DAD, W3CIM, K3ZJ, W3HVQ, K3DI and N3FZB, KC3VO, KD3VK, K3ZO, W6NRJ, W3MC, W3AZ, W3YOZ, K4VV, W1HIR, N3KTV, K2UOP, K8OQL, W9LT, N4MM, K3SW and N3DJM, N3PZV and W8ZA, K3IXD, N3FG, N3AM, K3SA, W3GG, and W3UJ. Turnout was lighter this year. For those who didn't come who usually do or who have in recent years, if you could take the time to give me a quick note on what were the factors, e.g., such as not publicized well enough in advance. I'd appreciate it so we can improve our act for '99.

The food was good and reasonably priced (lasagna dinner, \$9.50). We need to invest in a better projection screen and the PA muzak was too loud during presentations. Otherwise...

K3MM presided as KE3ZZ (Laurel, DE), KF3BE (Bowie, MD), and K1SO (Roanoke, VA area) were voted in.

Club competition gavels were awarded to four of our contesters. AA4NC won the club competition gavel for Sweepstakes, K80QL for the 160 contest, K1RZ for the VHF SS, and K4MA for the 10M contest.

The PVRC clock award was given to K3DI for his outstanding work on the PVRC newsletter. The clock given has a radio inside that's tuned to WWV and it automatically time corrects.

Five million award plaques were awarded to the first group to qualify. Winners were K3MM, K3ZO, KE3Q, N4RV, W4MYA, W9LT, N3OC, W3LPL, K4MA, and AA4NC. It's a very nice plaque, one that all PVRCers will want, I think! It's a cumulative award, that is, it does not restart each year. You will eventually get an award if you get on and contest, send in the score for PVRC, and record your score with PVRC tally-master W2GG. The bigger your scores or the more club competition contests you operate, the quicker

you'll get one. Currently, there are 13 club competition contests -- see the list on the reference page of this Newsletter. K3MM says there will be endorsements too.

The name of the 5M award is something Ty kept from the past...I know I was close to getting one back in the '77 timeframe when I joined PVRC...and then the award fell by the wayside I guess. This time it was started fresh...anything you had toward the award in the seventies was wiped out, clean slate. Since some people make more than 5M points in just one contest, and since different contests have completely different scoring (e.g. a big SS score is 200K, while a big single op CQWW score might be 5M or more), Ty designed a system that equalizes things more. We'll have to get Ty to republish it for us, but in brief, as I understand it, it's something like this: The top single op in the club gets a million points toward the award for his effort. He's the bench mark. If you make 90% of his score in that contest you'd get 900,000 points in that contest toward the award. An interesting wrinkle, as I understand it: If you DXpedition (during a contest like COWW or ARRL DX) that allows your score to count for the club, you may well have a bigger score than the top single op "back home." So, the top single op gets 1M points toward the award, but your DXpedition score was twice his "back home" score. You would get 2M points toward the award! (See 5Mil award rules later in this issue. -ed)

The awards were followed by a slide show on WP3R and A61AJ (update) by KE3Q; PJ9B by K3MM, and V26B by N3OC. Except for A61AJ, it was a bunch of shacks in warm places. Okay, okay, PJ9B's main building looked decent too. hi. And the V26B guys don't sleep at the shack; they stay at a nice resort hotel nearby! N3OC also showed some slides of the FS and VP2E post-contest trips. FB.

MINUTES NW CHAPTER, 15 DEC 98, by Steve Cutshall, K3TZV

The meeting of the NW Chapter at Tullys in Frederick was rather short and to the point as only NE3H and K3WC (ex-WA3IKK) attended. The service was excellent and they were the only ones present in the back where the meetings are held. The meeting consisted of each blaming the other for either the wrong night or missing the cancellation message. After the meal, they returned to Harrisburg to work FT5ZH on RTTY.

PVRC/SWVA Meeting Minutes, 11/20/98 by John Mitchell, K4IQ [email protected]

Site: Denny's Restaurant, West Salem, VA. 1800-2100. (Monthly meetings alternate between Roanoke area locations, to be announced.)

Attendees: W4YE, Buddy and XYL, Sarah; N4GU, Mike; K4IQ, John; N4BTO, Nat; K1SO, Jerry; K4EP, Phil; K1GG, Gordon.

Membership: This was K1SO, Jerry's, second meeting, and he was unanimously voted into Chapter membership. Welcome Jerry!

Meeting Agenda: We discussed the need to order T shirts soon for those who want them, as well as ongoing orders for QSL cards. Everyone was reminded of upcoming PVRC Christmas Holiday parties in the DC area, in case they could attend. Nat, N4BTO, reported that he doubled his score in Sweepstakes this year, but still classes himself as "little pistol." Buddy, W4YE, reports that the aurora on 80M during SS was "fascinating"

and that there were some really loud QRP signals this year. N4GU op'ed single band 15M at K1GG's for CQ WW Phone and reported that conditions were not great, with propagation razor sharp to pinpoint areas and no VK/ZL in the log. Mike also reported that the Virginia Tech club station, K4KDJ, would be active in a multi-op effort for SS Phone. Several stations planned to be active for the upcoming 160M and 10M tests, as well.

K4IQ brought pictures from the antenna raising parties in November, including a 360 degree panorama from the 100 foot level of the Catawba Valley (ridgetop elevation 2300 ft.) Buddy, W4YE wants to wait for Spring to raise his quad higher, and the club now has access to a gin pole, since K4IQ bought one. Mike, N4GU began preliminary discussion of a revival of the SWVA Contest Conspiracy for the NA QSO Party coming up in January. The meeting was adjourned at 8PM, after setting the location for our next meeting on December 18, at the Western Sizzlin' restaurant on Franklin Rd. SW, Roanoke.

SWVA PVRC minutes, Dec. 18, 1998 by Buddy Smith, W4YE

The monthly meeting of PVRC for SWVA was held at Western Sizzlin Restaurant in Roanoke Dec. 18th. Present: K4IQ, N4GU, K1GG, W4YE, K4EP, WA4BKW, KU4RG, K1SO, and guest KF4OKG.

John welcomed the group and began a formal agenda. First item was to introduce Shilyn, KF40KG who was eligible for membership. Anthony, KU4RG spoke in behalf of Shilyn. Shilyn was elected as our first YL member. We may have a contest team of RG/OKG in future contests!

John asked the group if we wanted to elect officers ... a brief discussion resulted in a strong vote of confidence in chairman K4IQ!! We did agree to help John by volunteering for secretary at our meetings. In January, N4GU is the lucky winner of this position. Hopefully we can relieve John of some of the paper work. John is a real spark plug for PVRC down here and keeps us informed and motivated.

Several items from Central PVRC were noted: PVRC logo shirts, caps and coffee cups as well as QSL cards.

Good news department: K1GG is almost fully recovered from his back surgery. Amazingly Gordon was the main tower man on the recent K4IQ 100' Rohn 25 event. N4GU got on in the 160 test using a piece of wire from his place in Danville.

We all made mention of the fact that it is important to be active in all contests to aid the PVRC cause. We are proud of the excellent results in 1998 for the club. While our group is small in number we continue to grow and contribute to the "cause". A recap of recent SS, CQ CW DX, and ARRL 160 contests was held. The usual humorous stories were told. John related his experiences on 75M in the SS. Several laughs resulted. Then there were the stories of where was VE1, NE, and VY1. Naturally, someone piped in "they were everywhere". The clean sweeper types really rub it in!

All agreed that Nov. and Dec. contests are bunched up and leave little time for other interests. Mike, N4GU gave us a FB contest calendar for Jan/Feb 1999.

Our SWVA contest conspiracy may be revived for the upcoming NAQP. John will e-mail us an updated roster of members soon. Holiday greetings were exchanged and the meeting adjourned at 8:35PM. As usual a great time of fellowship and sharing was the order of the evening. We will meet again, Jan. 22, 1999 at Shoney's in West Salem. We wish all PVRC members a Happy, Healthy and Winning New Year.

SHORT NOTES by the editor.

K4MM reports that he made 34 QSOs in the Croatian CW DX Contest for a score of 2272 using 10 meters only.

Glenn KC3EK is expects to spend a month or more mending from a ruputured appendix and associated emergency appendectomy. He says it is a hell of a way to spend his retirement that started on October 27, 1998. (Tnx W6AXX for QSP.)

All are reminded that a fast way to get in your required PVRC meetings is to attend the weekly Wednesday breakfast near BWI. See the reference page. Usually in attendance are W3IKE, Ike; K3VQ, Vaughn; WA0QII, Rod; N3WKE, Rusty, W3CB, Cliff, and W6AXX, Howard. (Tnx W6AXX.)

The Potomac Valley Radio Club 5 Million Award; Rules

Purpose: To recognize outstanding and ongoing support by members of the Club in significant amateur radio contests that sponsor club competition.

Eligibility: Any member of PVRC is eligible for this award. Eligible contests will be those listed for that season in the PVRC Club Competition Calendar. Scores must meet the contest sponsor's criteria for club competition in order to be counted for the 5 Million Award. Complete contest entries must be submitted to the contest sponsor within the sponsor's deadline for that contest and summary sheets must identify the Potomac Valley Radio Club to receive the club points.

Period: All qualified contest scores after July 1, 1997 will count towards the award. Initial awards and endorsements will be processed once a year based on Award Points as of June 30th. All Award points are cumulative and do not expire.

Scoring: The claimed scores actually submitted to the contest sponsor will be the basis for the 5 Million Award Points. Normalizing will be used on all claimed scores to calculate points for the 5 Million Award. The process for normalizing will be to take the highest domestic PVRC single operator claimed score for a contest, known as the Reference Score, and assign it a value of 1 million points. All other scores will be calculated as a fraction of this Reference score using the formula:

(Contest Score / Reference Score) x 1,000,000 = Award Points Each operator of an eligible Multi-operator entry may claim a share of that score for his Award total using the formula:

Normalized Multi Score / number of operators = 1 Share Award Points

In addition, any multi-op entry with two or more operators will be awarded double their Share Award Points for each operator. (No bonus for

single-op plus packet)

To encourage station owners to host PVRC operators, we are offering owners Matching Award Points. Any station owner who hosts PVRC operator(s) who generate(s) an eligible score, will receive Matching Award Points equal to that operator(s) Award Points (double points apply for hosts of multi's as well).

Under no circumstances will anyone receive Award Points for more than one operation during a particular contest. If more than one Award Points score is generated to a single member, they will receive the single highest score of the group only. Note that each eligible contest will be scored separately using the Reference Score unique to that contest. All 5 Million Award points are cumulative for the duration of the program.

Reporting: Unless otherwise specified, each claimed score must be reported to the designated PVRC Club Scorekeeper (currently Bob, W2GG, <a href="[email protected]">[email protected]</a>) within 45 days of the end of the contest. Claimed scores reported should exactly represent the score you submit to the contest sponsor for credit. If you make a correction to your original claimed score, please send the updated information to the Score Recorder. All submissions must contain a complete list of operator callsigns and the station host callsign if different.

Awards: The 5 Million Award will be an endorseable plaque earned after reaching a total of at least 5 million Award Points and will be presented within 6 months of the anniversary date of the program. Additional endorsements will be available for higher levels. Achievement certificates may also be issued.

Disclaimers: All rules, scores, results, and awards are subject to the scrutiny and decision of the Club officers and their determinations will be final. (tgs-010898, rev-120198

CQ World-Wide 160 Meter DX Contest Rules CW: 2200Z January 29 to 1600Z January 31 SSB: 2200Z February 26 to 1600Z February 28

- I. Objective The objective of these contests is for amateurs around the world to contact other amateurs in as many U.S. states, Canadian provinces, and countries as possible on the 160 meter band.
- II. Classes Single and multi-operator only. Use of packet, a spotting net, or logging assistance makes an entry multi-operator. Multi-operators should show the actual operator for each QSO. Under single operator there will be a designation of power level: H= power over 150 watts, L= power under 150 watts, and Q= 5 watts or less. There will continue to be only listings per state or country, but if there is sufficient activity or if a high enough score is made, then a seperate certificate will be issued. Minimum score for the seperate sertificate is 5,000 points! Multi-operators will all be considered high power.
- III. Exchange RS(T) and state for USA, province for Canada, and either prefix or country abbreviation for DX. Contacts without some location indicator will be ruled invalid.
- IV. Scoring Contacts with stations in own country, 2 points. Contacts

- with stations on same continent, 5 points. Contacts with other continents, 10 points. Maritime mobile contacts count 5 points. There is no longer any multiplier value for a maritime mobile contact.
- V. Multiplier Each continental US State (48), USA District of Columbia (DC), Canadian area (13), and DX country. KL7 and KH6 are considered DX and not state for this contest. DX countries are DXCC plus WAE (IT, GM Shetland Islands, et al). Canadian areas include VO1, VO2, NB, NS, PEI, VE2, VE3, VE4, VE5, VE6, VE7, NWT, and Yukon. Do not count States and Canada as seperate countries. Remember that maritime mobiles no longer count as a multiplier.
- VI. Final Score Total QSO points times the sum of all multipliers (states, VE, DX countries).
- VII. Penalties Three additional contacts may be deleted for each unacknowledged duplicate or unverified contact removed from the log.
- VIII. Disqualification A log may be disqualified for violation of amateur radio regulations, unsportsmanlike conduct, or claiming excessive duplicate/unverified contacts or false multipliers. Logs that shrink more than 5% are subject to disqualification or warning. The calls of those warned or disqualified may be printed with the results.
- IX. Awards Certificates will be awarded to the top scores in each class by state, Canadian area, and DX country. Runners-up with high scores over 100,000 may also receive certificates. Low power or QRP entries may also receive certificates if there is sufficient activity or the scoring is outstanding. The following plaques, with donating sponsors as indicated, will be awarded for exceptional efforts.
- X. Intercontinental DX Window 1830 to 1835 khz should be left clear for DX stations for intercontinental QSOs in both contests. This is still voluntary but essential if the contest is to continue to attract rare DX as entries. USA, Canadian, and European stations should refrain from using the window for local contacts. Please stay away from the window edges, too. This is a gentleman's contest and band, so let's help make intercontinental contacts happen.
- XI. Computer Logging Please send us your computer disk. IBM, MS-DOS compatible disks are encouraged. The format we prefer is your CT.bin or NA.bin file. If you use a program different from the one mentioned above, the generic format should contain a vertical single column of calls in chronological order. The committee will require, on request, a disk for any possible high score, provided that the paper log or dupe checking material as originally submitted was a computer printout. The outside of the disk should be clarely labeled with the call of the entrant, the files included, the mode (CW or SSB), and the category. Disks must be accompanied by a paper log or are subject to penalties or disqualification.
- XII. Manual Logs Sample log and summary sheets may be obtained from CQ by sending a large SASE with sufficient postage to cover your request. You can make your own with 40 contacts per page with columns for GMT, exchanges, multiplier, and points.
- XIII. Dupe/Check Sheets All logs over 200 contacts must provide a check

sheet or dupe list. A check sheet or dupe list is a list of all calls in alpha sorted order.

XIV. For All Logs Show the multiplier only the first time it is worked. Each page must have sub-totals for multipliers, contacts, and points. A running total below the sub-total on each page is recommended. Dupe or check sheets with every entry are requested and are required with over 200 QSO's. Include a summary sheet with your entry showing the scoring and other essential information. Include a printed name/mailing address and a signed declaration that all rules have been observed. Please put the summary sheet at the front of the log. All logs should clearly indicate total multiplier, W/VE multiplier, and DX multiplier.

XV. Club Competition Any club that submits at least three logs can enter the Club Competition. The name of the club must be clearly identified under club competition on the summary sheet. Club competition is a "for fun" competition to foster more activity. There is a seperate listing for the club scores.

XVI. Log Submissions Mailing deadline for CW entries is February 28, 1999, and March 31, 1999 for the SSB section. Exception: You may send both logs in one package as long as the CW log is received by March 31, 1999. Try to mail early to assure receipt. For a return receipt enclose an SASE or SAE with postage or 1 IRC. Avoid the registered postal route, as this delays getting the log until someone can sign the receipt! Finally, proof read your log before submission. Each year many errors are corrected that you should catch! Logs or sections of a log that are unreadable will be disqualified.

Send all logs to: 160 Meter Contest Director, David L. Thompson, K4JRB, 4166 Mill Stone Court, Norcross, GA 30092 USA. Please indicate CW or SSB on the envelope. E-mail to <a href="mailtogenailto:[email protected">[email protected]</a> E-mail logs should include the summary (.sum), the log (.all or .log or any ascii text listing), and the dup list (.dup). Updated 12/30/98

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SCORES
by Bob Dannals, W2GG
* * * * * * * * * * * * * * *
Changes/additions/deletions to to [email protected] or packet
* * * * * * * * * * * * * * *
   BE SURE TO SEND YOUR
   SCORES TO ARRL OR CO!
### = missing information
CQWW DX SSB (#10 12/22/98 FINAL)
CALL BND QSO ZON CTY
                       TOTAL
SINGLE OP HIGH POWER -UNASSISTED
K3ZO
         2353 140 457 3,961,095
K3LP/J6
         2847 93 295 2,456,040
         1163 118 379 1,600,000
NX9T
         612 90 257
K2UOP
                       576,020
         552 85 248
N4CW
                       501,498
WA4JUK
         624 84 216
                       504,000
         502 98 258 489,144
K4HA
W4MR 15 1033 30 120
                       430,030
         511 88 214 401,056
AJ3M
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N3RC		490	80	214	397,488
KC4B		514	64	195	376,327
KC3TL		464	81	226	360,418
KE3Q	10	793	31	133	330,000
N8II	10	737	29	125	311,388
W7CAV		395	64	180	268,888
K4RZ		###	66	176	265,474
N4AF		###	##	###	200,000
K4IQ		252	49	142	129,689
N4ZR		242	49	136	126,170
K3SV		200	65	148	112,038
W4IF		186	39	111	79 <b>,</b> 500
W4SD		162	50	111	67 <b>,</b> 942
K3IC		242	22	75	66,833
K3MLA	10	218	28	71	58,905
N3QYE		167	38	86	55,924
N4MM		127	50	79	44,892
W4PRO		116	88	49	42,333
K3OSX	10	118	21	60	25,758
W3JRY		78	27	53	14,960
K7LU		71	23	48	13,774
	160			_	•
моткт.	100	77	16	42	10,672
SINGLE	OΡ	LOW I	OWEI	2 _ T	JNASSISTED
W3UJ	OI	770	85		760,034
NV3V		478	78	193	350,000
	1 -				
N4MO	15	642	31	118	274,309
K4TMC	10	345	25	89	109,896
W3YD		186	39	97	68 <b>,</b> 952
AA4KD		170	53	110	66,341
W3CP	15	223	21	80	61,812
K1SE		176	41	99	61,740
K1EFI	20	183	21	79	50,000
N3TG		117	38	78	35,032
K3GEG	10	137	19	53	26,568
W4YE		###	31	58	22,517
N3EYB		57	19	40	8,437
N4BTO		37	16	25	3,977
					•
SINGLE	OP	ASSIS	STED		
K4MA		1464	153	511	2,675,256
N2QT		1294	138	473	2,161,718
W3HVQ		620	109	309	705,166
N3II		565	108	320	654,840
KB3AUG		569	94	301	616,595
КЗКО		555	85	243	509,712
N3NT		448	87	230	378,181
K3IXD		425	83	242	375 <b>,</b> 700
NT4D		417	85	222	348,445
N3GPU	1-	403	64	177	261,967
N4GU	15	434	32	114	174,470
K4SO		241	56	167	147,626
WR3L	15	330	32	115	136,710
NE3H		184	54	122	86 <b>,</b> 592
W1WTG		153	53	105	69,046
KO4MR	10	179	30	99	63,468

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MULTI - SINGLE
      1833 153 544 3,526,123
W9LT
W3GNQ
         1551 144 515 2,831,723
       1484 147 531 2,780,000
N4RV
        1394 93 311 1,576,408
HZ1AB
       1018 111 368 1,338,720
N1WR
K4KDJ
        378 70 188 87,118*
MULTI - MULTI
W3LPL 6069 179 739 15,282,864
W4MYA
        3839 172 639 8,440,077
       19624 189 825 5,820,000
PJ9B
        #### ### ### 3,227,000
V26B
       1557 137 477 2,642,042
#### ### ### 1,812,500
W8ZA
KH7R
         907 131 462 1,462,931
K3DI
74 LOGS TOTAL 76,370,869
* * * LAST YEAR (SSB & CW) - tnx KE3Q!
Frankford R C 360,666,652
Yankee Clipper C C 296,323,389
Potomac Valley R C 135,331,448
North Coast Contest 71,646,476
* * * * * * * * * * * * OPERATORS:
HZ1AB K3NA
K3DI W3ICM K3DI
K4KDJ K4EP plus two non-PVRC ops
KH7R ND3A plus 15 non-PVRC ops
N1WR N3WZR N3AFT N3HRT N1WR
N4RV N4RV KT4W
PJ9B K3MM plus 9 non-PVRC ops
V26B N3OC plus 11 non-PVRC ops
W3GNQ W3GNQ KA3QPG W3ZZ WI2T WR3Z
W3LPL K1HTV AI3M W2GG K3KY ND3F
      N3GB W3LPL K3RA KD4D K1RA
      K1RZ N5OKR K5OF
W4MYA K4BAM KB4DI KB4YPN KD4JXY
      KF4QQY N4EHJ N4ZJ W4DAA W4DR
      W4HZ W4MYA W4PFM(5X4F) W4SPT
      WA4DAI WK4Y WU4G Lilly
     KS4XG
W4MR
W8ZA
      W8ZA WD3A K3DNE K3SX
W9LT W9LT K3ZJ K8OQL K4SLR KU4KV
                             1)
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ARRL	CW SS	(#10	12/2	2/98 FINAL
CALL	PWR	QSO	SEC	$\mathtt{TOTAL}$
**	SINGLE	OP		
K3MM	В	1306	79	206,348
N4AF	В	1305	79	205,874
W4MR	В	1276	79	201,608
W3PP	В	1245	79	196,710
K3ZO	В	1196	78	186,576
N4ZR	В	1138	78	177,528
N8II	Α	1021	78	159,276

N4CW	В	996	78	155,376
K1HTV	Α	947	79	149,626
K3SV	В	930	79	146,940
K4MA	Α	885	79	139,830
W4YE	Α	841	79	132,878
W3MC	Α	837	79	132,246
K4QPL	Α	837	77	128,898
K7GM	A	763	79	120,554
N3NT	A	748	78	116,688
КЗКО	В	715	77	110,110
N3AM	В	708	76	107,616
W3HVO	В	641	79	101,278
W9LT	В	671	75	100,650
N3II	В	635	79	100,330
WR3Z	A	629	78	
				98,124
K3KY	В	623	78	97,188
N3OC	В	599 501	78	93,444
KM3V	A	581	78	90,636
W3DA	В	###	79	90,000
K3AN	Q	576	77	88,704
K4IQ	A	575	76	87,400
W3UJ	A	553	79	87,374
N4MO	A	563	72	81,072
W3AZ	В	507	78	79,092
WD3P	Q	539	73	78,694
K2AV	В	464	73	67 <b>,</b> 744
K3SA	Α	450	73	65,700
KU3M	В	394	73	57,524
W3CB	В	382	75	57 <b>,</b> 300
W4PRO	Q	344	79	54,352
K2UOP	В	364	74	53,872
W3CP	A	337	78	52 <b>,</b> 572
N4GU	Α	355	73	51,830
K4PB	Α	334	75	50,100
N1WR	Q	339	70	47 <b>,</b> 460
AA4KD	Α	299	68	40,664
N3WK	Q	200	63	25,200
NX9T	Α	200	60	24,000
K1GG	В	181	66	23,892
W4VC	Α	161	73	23,506
ND3F	Α	165	58	18,500
N4BTO	Α	150	58	17,400*
K3TM	Α	150	51	15,300
W3DAD	Α	141	53	14,946
K4SO	В	129	56	14,448
W2CS	В	134	52	13,936
N3RC	Α	104	50	10,400
W3GN	В	36	22	1,584
N3TG	Α	13	8	208
N4MM	В	5	5	50
	m z o	D 6 GT	NOT F	ACCTCEE
** MUL W4MYA	TIO B	P & SI 1153	NGLE 79	ASSISTED 182,174
W4M1A W4RM	В	1122	79 79	177,276
NJ4F	В	1031	79 79	162,898
K4IX/3	В	876	79 79	138,408
N3RR	В	859	79 79	135,722
MAKK	ь	0 3 3	13	133,122

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NT4D B 870 79 137,460
WR3L B 754 79 119,132
W4ATC B 727 79 114,866
K3DI B 718 79 113,444
W4ZYT B 636 79 100,448
W2GG A 523 79 82,634
NY3M A 367 79 57,986
K3HH A 222 65 28,860
KT4W B 100 40 8,000
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\*\* SPECIAL OPERATIONS \*\*
WP3R B 1565 79 247,270
by KE3Q

Visiting operators:
AA4NC was operator at W4MR

Multiop operators: K3DI packet K3DI K3HH packet кзнн K4IX/3 K4IX W4HIR KT4W KT4W packet N3RR K4VV W6HZW N3RR NJ4F NJ4F K7SV K4GMH K4EC K3IZ K1SE K4EU Daisy NT4D NT4D packet NY3M NY3M Dave Long W2GG W2GG packet W4ATC KO4PY NA4G KF4ARS KE4LSU N3QYE KD4SKW KF4USQ KF4LNQ W4MYA WA4QDM W4MYA W4RM W4NF W4CE W4RM W4ZYT W4ZYT W4SD KC4VZK AF4CD KU4EC

#### \* N4BTO is now N4EL

WR3L

#### LAST YEAR - UNLIMITED CATEGORY

K3FT N3YHC WR3L

logs Total CW & SSB
Potomac V R C 154 12,778,736
Northern Ca C C 115 10,923,976
Southern Ca C C 51 6,681,810
Yankee Clip C C 90 6,181,914

# ARRL PH SS (#6 12/17/98)

111(1(1		(""	, _,	,,,,,
CALL	PWR	QS0	SEC	TOTAL
**	SINGLE	OP		
K3MM	В	1770	79	279,660
W4MYA	В	1545	79	244,100
K3ZO	В	1557	79	245,690
W3PP	В	1496	79	236,368
K4MA	В	1421	79	224,360
W0CN	В	1400	79	221,200

K4IQ	В	1300	79	205,400	
K1HTV	Α	1275	79	201,450	
N3HBX	В	1212	78	189,072	
KE3ZR	В	1001	79	158,158	
W4MR	В	1000	79	158,000	Op AA4NC
K8OQL	В	914	77	140,756	from W9LT QTH
N4AF	В	875	76	132,848	
KB3AUG	В	831	79	131,298	
NX9T	В	750	79	118,500	
W8ZA	В	726	79	114,708	Op K3DNE
W3HVQ	В	713	79	112,654	ор кэрин
_	В	706	79	111,548	
K3UT				· ·	
K3MQH	A	700	79 70	110,600	
W4YE	A	663	79 70	104,754	
N4MO	A	637	79	100,646	
KC3TL	В	653	74	96,644	
WR3Z	Α	608	79	96,064	
N1WR	Α	617	77	95,018	
4U1WB	В	578	78	90,168	Op AJ3M
K4SO	В	550	79	86,900	
K2UOP	В	548	79	86 <b>,</b> 584	
W3ZZ	В	540	78	84,240	
KS4XG	В	500	77	77,000	
N4GU	Α	483	76	73,416	
K3IXD	В	452	79	71,416	
KU3M	Α	402	78	62,712	
N3II	В	390	79	61,620	
W3UJ	Α	410	75	61,500	
K4HA	Α	363	79	57 <b>,</b> 354	
K3KY	В	340	79	53 <b>,</b> 720	
NV3V	A	344	78	53,664	
N4MM	A	337	79	53,246	
N4CW	A	350	75	52,500	
W3AZ	В	307	79	48,506	
K3OSX	В	305	79	48,190	
W7CAV	A	301	79	47,558	
K3AN		298	78	46,488	
_	Q B		72	41,760	
N4ZR		290			
N3UN	A	259	78 75	40,404	
W3CB	A	250	75 72	37,500 34,560	
K4QPL	A	240	72		
K3KO	В	206	73	30,076	
AF4CD	A	188	79	29,704	
N8II	В	183	61	22,326	
W3IKE	Q	141	66	18,612	
W4VC	A	135	68	18,360	
N3TG	A	117	60	14,040	
W3JRY	В	105	52	11,130	
N3EYB	A	98	49	9,604	
N3GPU	Α	56	35	3,920	
W3AMY	Α	40	19	1,520	
W3CQH	Α	28	26	1,456	
	m = ^	D 6 6=	a	AGGTGTT	
_	TIO			ASSISTED	
N3RR	В	1156	79 70	182,648	
WR3L	В	1126	79 70	177,908	
NT4D	В	1027	79	162,266	

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W4ATC B 865 77 133,210
K3DI B 532 79 84,056
K3SV B 524 79 82,792
K1GG B 500 79 79,000
N3RC B 446 79 70,468
N3NT B 429 79 67,782
N3OC B 377 79 59,566
W2GG A 359 79 56,722
N4RV B 180 62 23,000
N4RV B 180 62
                             23,000
70 LOGS PH TOTAL 6,540,668
71 LOGS TOTAL 6,410,464
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141 LOGS GRAND TOTAL 12,951,132
** SPECIAL OPERATIONS **
WP3R B 2755 79 432,500 by KE3Q
VO1AA A 515 77 79,310 by W4SD, W4ZYT, VO1HE, VO1MX
Multiop operators:
N3RR K4VV W6HZW N3RR
WR3L K3FT N3YHC WR3L
NT4D NT4D packet
W4ATC N3QYE KF4ARS KE4LSU KO4PY
K3DI W3ICM K3DI
K3SV K3SV packet
N3NT N3NT packet
W2GG W2GG packet
N4RV N4RV KT4W
N3RC N3RC packet
N3OC N3OC packet
LAST YEAR - UNLIMITED CATEGORY
                 logs Total CW & SSB
Potomac V R C 154 12,778,736
Northern Ca C C 115 10,923,976
Southern Ca C C 51 6,681,810
Yankee Clip C C 90 6,181,914
 COWW DX CW (#5 12/17/98)
 CALL BND QSO ZON CTY TOTAL
 SINGLE OP HIGH POWER -UNASSISTED
K3ZO 3481 154 470 6,336,096
N4AF 3133 142 454 5,366,980
       3133 142 454 5,366,980
3047 145 448 5,260,000
2871 140 460 4,959,600
2288 139 439 3,843,700
2122 129 421 3,389,100
KT3Y
K0D0
W4MR
N4ZR
WF3J
          1297 124 377 1,862,217
          1421 110 337 1,842,534
W3MC

      K3OSX
      1131 124 356 1,542,720

      K3SA
      932 116 373 1,306,119

      W3GN
      1006 112 343 1,267,630

      W4YE
      938 108 342 1,209,600
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W3AZ		742	94	289	816,173
N3AM		765	77	238	692,370
	15	1369			601,800
W9LT			35	115	
W3GG	40	939	33	117	410,250
N4MM		628	114	308	758 <b>,</b> 334
N3JT		500	74	207	394 <b>,</b> 805
W3CP	15	331	26	96	120,780
W4ZYT		154	54	92	61,612
	4.0				
W3TMZ	40	148	29	95	51,088
N4SLR	40	201	19	70	49,306
W4HM	10	190	23	68	47 <b>,</b> 957
K4UX		###	(:	L07)	25,894
K4VV	20	78	16	32	10,608
					,,
SINGLE	OΒ	T OW 1	OMET	э т	JNASSISTED
	OP				
N1WR		967		344	
W3UJ		864	98	320	1,080,948
K1EFI		657	91	307	731,922
W3DAD		575	71	242	519 <b>,</b> 267
K7CMZ		546	87		497,169
N3TG		438	77	213	359,020
N4MO	15	835	34	112	353,320
N3UN		359	82	203	281,010
AA4KD		346	63	175	223,958
N3UMA		234	66	156	140,526
	1 -				
W3CP	15	331		96	120,780
K7GM		188		103	77 <b>,</b> 850
W3KN		165	46	117	75 <b>,</b> 469
N4EL		133	48	90	42,642
K4EP		61		41	10,200
					•
STNCLE	ΩÞ	ORP -	_ 11N12	ASST	משיב
SINGLE	OP	~			
SINGLE W3ZZ	OP	QRP -		ASSIS 276	
W3ZZ		707	101		
W3ZZ SINGLE		707 ASSIS	101 STED	276	746,837
W3ZZ		707	101 STED		746,837 2,559,620
W3ZZ SINGLE		707 ASSIS	101 STED 160	276	746,837 2,559,620
W3ZZ SINGLE N3RR K3KO		707 ASSIS 1380 1400	101 STED 160 135	276 498 416	746,837 2,559,620 2,208,408
W3ZZ SINGLE N3RR K3KO K3SV		707 ASSIS 1380 1400 1297	101 STED 160 135 114	276 498 416 434	746,837 2,559,620 2,208,408 2,056,644
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ		707 ASSIS 1380 1400 1297 1225	101 STED 160 135 114 125	276 498 416 434 423	746,837 2,559,620 2,208,408 2,056,644 1,929,508
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ		707 ASSIS 1380 1400 1297 1225 1099	101 STED 160 135 114 125 123	276 498 416 434 423 359	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY		707 ASSIS 1380 1400 1297 1225 1099 1046	101 STED 160 135 114 125 123 126	276 498 416 434 423 359 389	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ		707 ASSIS 1380 1400 1297 1225 1099 1046 721	101 160 135 114 125 123 126 126	498 416 434 423 359 389 350	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY		707 ASSIS 1380 1400 1297 1225 1099 1046 721	101 160 135 114 125 123 126 126	498 416 434 423 359 389 350	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II		707 ASSIS 1380 1400 1297 1225 1099 1046 721 698	101 STED 160 135 114 125 123 126 126 118	498 416 434 423 359 389 350 351	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D		707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645	101 STED 160 135 114 125 123 126 126 118 128	498 416 434 423 359 350 351 326	746,837 2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI		707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622	101 STED 160 135 114 125 123 126 126 118 128 113	498 416 434 423 359 359 351 326 335	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583	101 STED 160 135 114 125 123 126 126 118 128 113	498 416 434 423 359 359 351 326 335 278	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583	101 STED 160 135 114 125 123 126 126 118 128 113	498 416 434 423 359 359 351 326 335 278	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115	101 STED 160 135 114 125 123 126 126 118 128 113	498 416 434 423 359 359 351 326 335 278	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115	101 STED 160 135 114 125 123 126 126 118 128 113 110 21	498 416 434 423 359 350 351 326 335 278 62	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089	101 STED 160 135 114 125 123 126 126 118 128 113 110 21	276 498 416 434 423 359 350 351 326 335 278 62	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089	101 STED 160 135 114 125 123 126 126 118 128 113 110 21	276 498 416 434 423 359 350 351 326 335 278 62	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844	101 STED 160 135 114 125 123 126 128 118 113 110 21	276 498 416 434 423 359 350 351 326 335 278 62 505 476	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089	101 STED 160 135 114 125 123 126 126 118 128 113 110 21	276 498 416 434 423 359 350 351 326 335 278 62 505 476 418	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO NY3M	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089 497	101 STED 160 135 114 125 123 126 126 118 128 113 110 21 148 142 127 100	276 498 416 434 423 359 350 351 326 335 278 62 505 476 418 297	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620 552,227
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO	OP	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089 497	101 STED 160 135 114 125 123 126 126 118 128 113 110 21 148 142 127 100	276 498 416 434 423 359 350 351 326 335 278 62 505 476 418 297	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620 552,227
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO NY3M WR3L	OP 160 - Si	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089 497 706	101 STED 160 135 114 125 123 126 126 118 128 113 110 21 148 142 127 100	276 498 416 434 423 359 350 351 326 335 278 62 505 476 418 297	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620 552,227
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO NY3M	OP 160 - SI 15	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089 497 706 JLTI	101 STED 160 135 114 125 123 126 118 128 113 110 21 148 142 127 100 35	498 416 434 423 359 350 351 326 335 278 62 505 476 418 297 125	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620 552,227 325,120
W3ZZ SINGLE N3RR K3KO K3SV N4ZJ W3HVQ K3KY K4PB N3II NT4D K3DI K4MA W4DR  MULTI N4RV N3OC W4PRO NY3M WR3L	OP 160 - SI 15	707 ASSIS 1380 1400 1297 1225 1099 1046 721 698 645 622 583 115 INGLE 2089 1844 1089 497 706 JLTI	101 STED 160 135 114 125 123 126 118 128 113 110 21 148 142 127 100 35	498 416 434 423 359 350 351 326 335 278 62 505 476 418 297 125	746,837  2,559,620 2,208,408 2,056,644 1,929,508 1,508,660 1,543,970 971,040 925,806 806,304 771,456 637,484 25,481  3,940,855 3,263,040 1,654,620 552,227

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W3LPL 8513 203 775 23,850,000
W4MYA 5098 181 650 12,166,671
KH7R #### ### ### 1,939,784
62 LOGS CW TOTAL 144,482,147
74 LOGS SSB TOTAL 76,370,869
-----
136 LOGS GRAND TOTAL 220,853,016
LAST YEAR (SSB & CW) - tnx KE3Q!
Frankford R C 360,666,652
Yankee Clipper C C 296,323,389
Potomac Valley R C 135,331,448
North Coast Contest 71,646,476
* * * * * * * * * * * * * * * * *
OPERATORS:
A61AJ A61AJ KE3Q PA3GIP/T94S T93Y
      T97M W3UR
KH7R ND3A plus 11 non-PVRC ops
N3OC N3OC WR3Z
N4RV N4RV N4RA KT4W
NY3M NY3M Dave Long
W3LPL K1HTV AA3KX ND3F W2GG K3RA
      K3MM K3LP K4ZW KD4D K3MQH
      W3LPL K2YWE
W4MYA list of ops needed
W4MR N4CW
W4PRO W4PRO WB4DNL W4HIR
  * one third of total score
PVRC ARRL 160 CONTEST RESULTS (#2 12/11/98)
CAT.T.
       OSO SEC DX
                     ΤΩΤΆΤ
```

_ QSO	SEC	: DX	TOTAL
SINGLE OF	HIG	H POV	VER
974	74	14	176,968
955	75	9	163,968
685	72	8	111,520
615	71	12	104,829
550	66	13	90,139
529	(7	9)	85,004
Г 600	53	12	81,120
500	68	8	77,824
509	61	9	73,150
512	54	13	71,288
Z 452	68	5	67 <b>,</b> 087
360	68	9	57,519
360	65	5	51,870
311	55	2	35 <b>,</b> 796
206	50	5	23,485
146	42	3	13,545
SINGLE OP	LOW	POWER	₹
340	52	3	67 <b>,</b> 087
373	56	0	41,776
287	(	59)	34,397
	SINGLE OF 974 955 685 615 550 529 F 600 500 P 509 512 452 360 360 311 206 146 SINGLE OP 340 373	SINGLE OP HICE  974 74  955 75  685 72  615 71  550 66  529 (7  600 53  500 68  P 509 61  512 54  Z 452 68  360 68  360 65  311 55  206 50  146 42  SINGLE OP LOW  340 52  373 56	SINGLE OP HIGH POWER  SINGLE OP HIGH POWER  974 74 14  955 75 9  685 72 8  615 71 12  550 66 13  529 (79)  600 53 12  500 68 8  509 61 9  512 54 13  452 68 5  360 68 9  360 65 5  311 55 2  206 50 5  146 42 3  SINGLE OP LOW POWER  340 52 3  373 56 0

330	(	50)	33,300
			18,228
			8,856
111	35	0	7,770
51	21	0	2,142
OP (	QRP	POWER	}
615	(	75)	104,025
P			
710		8	111,419
554	61	3	71,488
496	59	9	69,496
374	67	6	55,918
			36,568
272	(	55)	30,085
194	47	4	20,400
150	44	4	14,976
T	JATC	2,	013,043
- 19	997		
		~~~	score
		-	616,709
РС			522,411
			686,514
_			744,696
			269,609
	183 123 111 51 OP (615 P 710 554 496 374 325 272 194 150 T( R C PP C	183 47 123 36 111 35 51 21  OP QRP 615 (  P 710 69 554 61 496 59 374 67 325 55 272 ( 194 47 150 44  TOTAL  TOTAL	111 35 0 51 21 0 OP QRP POWER 615 (75) P 710 69 8 554 61 3 496 59 9 374 67 6 325 55 1 272 (55) 194 47 4 150 44 4 TOTAL 2, 

# Operators:

K3DI: K3DI packet
N3AM: N3AM packet
N3NT: N3NT packet
NE3H: NE3H packet
NT4D: NT4D packet
W2GG: W2GG packet
W4NF: W4NF packet
WA4QDM: WA4QDM packet

### PVRC ARRL 10m CONTEST RESULTS (#6 12/30/98)

 ${\tt CALL}$ QSO'S STS DX TOTAL SINGLE OP HIGH POWER - MIXED W4MYA 2522 (271) 2,078,570 K3ZO 2368 116 152 1,961,224 N3OC 1500 105 136 1,176,080 N4AF 1527 94 120 1,099,104 K4MA 1624 109 122 1,085,700 1300 101 120 869,414\* K80QL N4GU 953 (190) 606,100 N3IQ 483 57 131 329,000\* 71 63 KE3ZR 831 233,696

W4HJ	208	(88)	72,512
W3HVQ	204	(94)	65,048
W4ZYT	169	36 40	51,376
K4VV	173	(68)	40,528
		( /	. , .
~			
	OP LOW		MIXED
N1WR	750	98 123	510,952
K2UOP	771	89 108	441,674
W3UJ	674	86 106	403,968
WK3I	649	(182)	400,400
K3MLA	500	82 77	206,064
K4EP	347	58 86	130,464
W3DQ	317	63 73	108,256
W4SD	249	60 56	101,848
W3MR	266	(105)	64,470
		24 27	
N3TG	96		19,584
N4TL	33	(19)	1,520
SINGLE	OP ORP	POWER -	MIXED
DINOLL	OI QILI	TOWER	птишь
SINGLE	OP HIG	H POWER -	
N4MM	1533	61 99	490,560
NX9T	993	54 79	
KB3AUG		49 68	•
W3YD	300	40 50	54 <b>,</b> 000
SINGLE	OP LOW	POWER -	PHONE
	1166	53 69	284,504
W2BZR			
K4TMC	525	45 61	111,300
4U1WB	346	38 46	58,128
W3LEO	100	(57)	11,400
N3QYE	131	24 16	10,480
W3JRY	75	(49)	7 <b>,</b> 350
N4DEN	42	16 14	2,520
			_,
CINCIE	OD 1170	II DOMED	CIV.
		H POWER -	
N8II	1243	55 77	656 <b>,</b> 304
WU4G	693		
		55 60	
M3CM		55 60	320,620
W3GN	422	49 47	320,620 163,584
W3GN K3SA			320,620
	422	49 47	320,620 163,584
K3SA	422 250	49 47	320,620 163,584 74,000
K3SA SINGLE	422 250 OP LOW	49 47 31 43 POWER -	320,620 163,584 74,000
K3SA SINGLE N4MO	422 250 OP LOW 720	49 47 31 43 POWER - 49 64	320,620 163,584 74,000 CW 326,344
K3SA SINGLE	422 250 OP LOW 720 524	49 47 31 43 POWER – 49 64 58 64	320,620 163,584 74,000 CW 326,344 257,176
K3SA SINGLE N4MO	422 250 OP LOW 720	49 47 31 43 POWER - 49 64	320,620 163,584 74,000 CW 326,344
K3SA SINGLE N4MO W4YE W3DAD	422 250 OP LOW 720 524 403	49 47 31 43 POWER - 49 64 58 64 (98)	320,620 163,584 74,000 CW 326,344 257,176 159,152
K3SA SINGLE N4MO W4YE W3DAD W3CP	422 250 OP LOW 720 524 403 355	49 47 31 43 POWER - 49 64 58 64 (98) (98)	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB	422 250 OP LOW 720 524 403 355 350	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904
K3SA SINGLE N4MO W4YE W3DAD W3CP	422 250 OP LOW 720 524 403 355 350 325	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB	422 250 OP LOW 720 524 403 355 350	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI	422 250 OP LOW 720 524 403 355 350 325 136	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE	422 250 OP LOW 720 524 403 355 350 325	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL	422 250 OP LOW 720 524 403 355 350 325 136 108	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL	422 250 OP LOW 720 524 403 355 350 325 136 108	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL SINGLE	422 250 OP LOW 720 524 403 355 350 325 136 108 OP QRP	49 47 31 43 POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL SINGLE	422 250 OP LOW 720 524 403 355 350 325 136 108 OP QRP	49 47 31 43  POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13  POWER -	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL SINGLE MULTI O	422 250 OP LOW 720 524 403 355 350 325 136 108 OP QRP	49 47 31 43  POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13  POWER -	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120 CW
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL SINGLE	422 250 OP LOW 720 524 403 355 350 325 136 108 OP QRP	49 47 31 43  POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13  POWER -	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120 CW
K3SA SINGLE N4MO W4YE W3DAD W3CP W3CB K1SE K1EFI K4QPL SINGLE MULTI O	422 250 OP LOW 720 524 403 355 350 325 136 108 OP QRP	49 47 31 43  POWER - 49 64 58 64 (98) (98) 51 41 40 50 23 38 22 13  POWER -	320,620 163,584 74,000 CW 326,344 257,176 159,152 140,336 129,904 117,720 38,184 15,120

```
1346 (256) 1,134,592
1267 98 139 1,056,546
K3MM
WR3L
      1353 149 98 1,039,376
W3PP
       918 88 133 700,128
K3KO
K3VOA 1017 98 125 648,038
K3SV 800 (218) 565,928
NT4D
       720 95 104 430,636
       557 94 135 405,788
N3II
W2GG
       565 (210)
                      369,180
W4PRO 882 50 87 242,764
NE3H 405 69 70 189,596
WA4QDM 357 (155)
WA4QDM 357 (155) 182,590
K3DI 306 (130) 139,620
       403 (84) 135,408
288 52 90 134,048
N3AM
N3NT
NY3M 310 (107) 133,108
KE3Q 90 (20) 8,616
K3IXD 79 26 19
                       7,110
69 LOGS TOTAL 30,093,792
LAST YEAR - 1997
P V R C 51 7,476,174
FLA CONTEST CL 17 6,071,732
FRANKFORD R C 55 5,860,982
FLA CONTEST GRP 13 4,365,312
-----
Multiop operators:
Single op plus packet unless indicated below.
8P9Z K4FJ plus 1 nonPVRC
K3VOA K3DNE K3IXD N3NT W3LEO
       W6HZW
K4SO
      K4SO KT3Y K5OF
NY3M NY3M Dave Long
W4MR N4CW AA4NC
W4PRO KO4MR KU4VA W4PRO
WF3T WF3T K3MQH N3JDQ
WR3L K3FT N3YHC WR3L
Guest op:
4U1WB AJ3M
N3IQ
       ND3F
K80QL operated from W9LT's QTH
```

1802 (257) 1,519,898

PVRC REFERENCE PAGE. Please send corrections to the editor. 12/25/98 changes are underscored.

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PVRC Officers
President
```

W4MR

K3MM Tyler Stewart 301-414-5444 [email protected]

Vice President

N3OC Brian McGinness 301-652-6768 [email protected]

```
Secretary
KE3Q Rich Boyd
                  301-464-8014
                                       [email protected]
Treasurer
                  410-DX1-WR3L [email protected]
      Dave Baugher
WR3L
Historian
K3SA
      Steve Affens
                        301-774-0558
                                      [email protected]
Membership Sec
W2GG
    Bob Dannals
                         410-472-2004
                                      [email protected]
```

PVRC Charter Members:

W3GRF (SK), W4AAV (SK), W4KFC (SK), N0FFZ (SK), W4LUE, W7YS, VP2VI (W0DX), W3IKN, W4KFT.

```
PacketCluster Contest/DX System (MHz):
W3LPL Glenwood MD 145.590 441.250
KE3Q Bowie MD 145.570 445.375
N3RR Rockville MD 145.510 441.325
N4OHE Mt.Weather VA 145.710 440.925
K3MQH S Mountain PA 145.630
WR3L Baltimore MD 145.610 440.950
N4SR Woodbridge VA 145.630 *
K4FJ Mt. Vernon VA 145.770 *
KE3QZ Hollywood MD 145.690 *
K3SKE Frederick MD 144.930
```

This system is sponsored by the Potomac Valley DX Spotting Network except "\*" are independently funded by each SYSOP.

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PVRC on Internet.

PVRC web site by K3SA:
   http://www.pvrc.org

PVRC/NC web site by KS4XG
   http://www.pagesz.net/~pvrcnc

PVRC reflector: (editor KS4XG)
   To post: [email protected]
   To join* send email to:
   [email protected]
   Text: SUBSCRIBE PVRC
```

\*Members only. If your call is not within your URL, then send msg to [email protected]

PVRC dues and ARRL renewals: The annual dues are by donation - hopefully at least \$10. Club gets a cut from ARRL renewals sent via PVRC. Both dues and renewal checks should be made to PVRC and sent to Dave Baugher, WR3L, 615 Rockway Beach Av, Baltimore, MD 21221. Thank you.

Newsletter & Autocall column Editor: Dick Wilder, K3DI, 913 Shore Acres Rd, Arnold, MD 21012-1724. Voice 410-757-6706, FAX/modem 410-757-6720, Dxcluster packet, and [email protected] Deadlines are the 25th unless prior arrangements are made.

CENTRAL: The Central Meeting is always the second Monday (except June, July, and August) at 7:30 pm. The central meeting generally alternates between MD and VA locations. A pre-meeting dinner is usually held between 5:00 and 6:30 pm. Check via 147- repeater.

VA LOCATION: The Patrick Henry (Public) Library, Route 123, Vienna, VA. Pre-meeting dinner at Outback, Old Branch Ave.

MD LOCATION: Church of the Nativity (Episcopal), Route 5, Temple Hills, MD. Pre-meeting dinner at Topolino's.

NORTHWEST: Greg Altig 410-775-7313 [email protected] Meets at 7:30 pm on the third Tuesday every month at Tully's Grill, 1080 W. Patrick St, Frederick, MD. Same center as Shoppers Food Warehouse. Essentially includes WEST VIRGINIA area.

NORTH CAROLINA: Chair: Jim Stevens, K4MA, [email protected]; Sec: Pete Soper, KS4XG, [email protected], reflector editor, hm: 919-362-4635, wk: 919-481-6874. Activites: Jim Stevens, K4MA?. POC is K4MA and KS4XG. Howie Hoyt, N4AF, [email protected] is PVRC reflector editor. PVRC/NC meets at 6:00 pm the first Thursday of every month at Ryan's Family Steakhouse at Crossroads in Cary. There is a table set and waiting for you.

# TIDEWATER (VA) COLONY OF PVRC:

Don Lynch W4ZYT 757-486-0728 [email protected] Meetings are the 3rd or 4th Tuesday of every month in conjunction with the VA DXCC at C&M Cafeteria, Independence Blvd at the Giant Shpping Center. Take I-64 to 44/I-264 inter-change, go east on 44. Take Independence about 1.5 miles. C&M is on the left. Dinner at 1900 and meeting at 2000.

SOUTHWEST VA CHAPTER: Coordinator: John Mitchell, K4IQ, Catawba, VA 540-384-7377, [email protected] Monthly meetings alternate between Roanoke area locations

THE BWI REGIONAL/PVRC: Weekly breakfast Wed at 7:30 AM at Basil's Deli Port on Elkrdige Landing Rd 1/4 mile South of Winterson Road 410-850-4333. Director: Ike Lawton, W2EOS, 410-263-2830. Secretary: Howard Leake, W6AXX, 410-465-7008, [email protected]

#### OVER-THE-HILL BUNCH (Luncheon):

Rotating hosts announces meeting info. Ben Shaver, AA4XU, 703-534-4740; Andy Anderson, W3XE, 301-384-7771, [email protected], Holiday Inn, College Park MD; and Bill Leavitt, W3AZ, 301-292-5797, Ramada Inn, Oxon Hill

# PENNSYLVANIA:

Steve Cutshall, K3TZV 717-763-0462.

#### RAPPAHANNOCK

Steve Bookout, NJ4F steve @ 1bigred.com

WOODBRIDGE: Jack O'Mara W4NF 703-680-4106 and Cliff Deel W4CE 703-491-0841 [email protected]

CENTRAL VA: Bob Morris, W4MYA 804-457-9011 [email protected]

SOUTHERN MD: Chair: Barry Shapiro, WR3Z. (H) 301-862-2466 Usually meets at N1WR's. [email protected]

EASTERN-SHORE (DEL-MAR-VA):

Dallas Carter, W3PP 302-875-0550 [email protected]

WEST (Shenandoah, etc): Chair vacant

NORTHEAST: WR3L, see info above

EAST (Annapolis): KE3Q, see info above

OTHER MEETINGS (based on last year):

Jun. W3LPL open house Sat before Field Day with joint

FRC/PVRC meeting on alternate years. (1999, 2001, ...)

summer. When joint FRC/PVRC is at FRC, they announce the date.

Jul. PVRC/NC cook out

Jul. Open house, W4MYA, Goochland,

Aug. Joint NCDXA/PVRC Fowlfest at W3YOZ Park

Aug. VHF++ meeting/workshop at ND3F

Sep. PVRC meeting at the FARfest in Gaithersburg

Sep. Open house, WR3L, Baltimore Dec. Christmas dinner, DC area.

5 MILLION (CLUB COMPETITION) AWARD Month and number of the full week end.

Jan 3 ARRL VHF Sweepstakes

Jan 4 CQWW 160m CW

Feb 3 ARRL DX CW

Feb 4 CQWW 160m SSB

Mar 1 ARRL DX SSB

Mar last COWW WPX SSB

May last CQWW WPX CW

Oct 4 CQWW DX SSB

Nov 1 ARRL Sweepstakes CW

Nov 3 ARRL Sweepstakes SSB

Nov 4 CQWW DX CW

Dec 1 ARRL 160m Mixed

Dec 2 ARRL 10m Mixed

Standings at http://jctc.org/pvrc5m.htm

Roster updates at:

http://www.pvrc.org/pvrcmm98.htm

FREE COPY OF CONTEST SOFTWARE CT

A free shareware copy of CT 6.26 is available with January 1999 CTY and SEC files in the 1991 CT6 format. This free legal copy is ideal to entice a new Ham into contesting. For more info contact K3DI. See addresses in the left column of this page.